

Claims

- [c1] 1. An washer system for an automotive vehicle, comprising:
a first reservoir containing a freezable fluid;
a second reservoir containing freeze-resistant fluid;
a mixer for combining fluids from the first and second reservoirs; and
a controller, operatively connected with the mixer, for determining a relative proportion for combining the fluids from said first and second reservoirs.
- [c2] 2. An automotive washer system according to Claim 1, further comprising a temperature sensor operatively connected with said controller, with said controller determining said relative proportion based at least in part upon an output from said sensor.
- [c3] 3. An automotive washer system according to Claim 2, wherein said controller further comprises a memory for storing values corresponding to said relative proportion and to the temperature output of said sensor.
- [c4] 4. An automotive washer system according to Claim 3, further comprising a heater for increasing the temperature of fluid within said mixer, with said heater being operated by said controller such that said heater is energized according to the stored values of temperature and fluid proportion.
- [c5] 5. An automotive washer system according to Claim 1, further comprising a temperature sensor operatively connected with said controller and a fluid distribution system operatively associated with said mixer, with said fluid distribution system having a heater operated by the controller according to at least the output of said sensor.
- [c6] 6. A temperature adaptive automotive washer system comprising:
a first reservoir containing a freezable fluid;
a second reservoir containing a freeze-resistant fluid;
a mixer for combining fluids from the first and second reservoirs;
a fluid distribution system operatively associated with said mixer;
a heater for increasing the temperature of at least a portion of said fluid distribution system;

a temperature sensor for measuring a temperature of at least a portion of said washer system; and

a controller, operatively connected with the mixer, the temperature sensor, and the heater, with said controller determining a relative proportion for combining the fluids from said first and second reservoirs and operating the heater, as a function of at least the temperature measured by the temperature sensor.

[c7] 7. An automotive washer system according to Claim 6, wherein said controller comprises a memory for storing a temperature value corresponding to the temperature of at least a portion of the fluid distribution system and the mixer each time fluid passes through the fluid distribution system, with said controller operating the heater as a function of at least a previously stored value of said temperature.

[c8] 8. An automotive washer system according to Claim 6, wherein said controller determines said relative proportion so as to use a minimum amount of fluid from said second reservoir.

[c9] 9. A method for operating an automotive washer system, comprising the steps of:

measuring a temperature related to the temperature of said system;

reading a previously stored system mix value;

determining whether the said previous mix value is suitable for the measured temperature;

calculating a new value based at least in part upon the measured temperature;

and

applying heat to the washer system in the event that the previously stored mix value corresponds to a temperature in excess of the measured system temperature.

[c10] 10. A method according to Claim 9, further comprising the steps of mixing washer fluid from a plurality of reservoirs according to the new mix value and applying the mixed fluid to an outer surface of a vehicle.